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WASHINGTON DC 20350-1000**

AUG 19 1997

MEMORANDUM FOR THE DISTRIBUTION LIST

Subj: MANPOWER COST ESTIMATING DATABASES AND METHODOLOGIES

Ref: (a) NCCA Ltr Ser NCCA-21/323-96 dtd 2 Oct 96 (NOTAL)

**Encl: (1) Revised Manpower Cost Estimating Rates from the "Cost of A Sailor" Study
(2) Navy Methods and Databases for Estimating the Cost of Manpower**

1. In June 1996 the Naval Center for Cost Analysis (NCCA) undertook an in-house study called "Cost of A Sailor", the purpose of which was to address comprehensive personnel costs associated with the operating forces. In the past, indirect personnel costs have generally been ignored when conducting life cycle cost (LCC) estimates. To the extent that indirect personnel costs were taken into consideration, it was through use of the Billet Cost Factors (BCF) database/model.


2. The exclusion of indirect personnel costs has underestimated manpower costs and distorted the results of tradeoffs between personnel costs and investment in new technologies. It is important that we use more accurate personnel cost estimating rates for intra-Navy tradeoffs and analyses. I thus request that you employ the preliminary results of Cost of A Sailor contained in enclosure (1) for all future intra-Navy analytical purposes, such as Analyses of Alternatives (AOAs) and manpower/hardware tradeoff studies. Cost estimates forwarded to organizations outside the Navy, e.g., CAIG estimates and SAR reports, should continue to use only direct manpower cost rates. The manpower rates contained in enclosure (1) supersede the preliminary rates provided to some organizations by reference (a).

3. NCCA's approach to developing comprehensive personnel costs encompasses the following:

- a. Providing various alternatives for estimating personnel costs, depending on the amount of information known about the composition of the crew. Enclosure (2) provides amplifying information in this regard.
- b. Updating, restructuring and modifying the existing BCF database/model for completeness and granularity of direct personnel costs.
- c. Using the results of Cost of A Sailor to identify and quantify variable indirect personnel costs.
- d. Developing a database/model to be called "Cost of Manpower Estimating Tool (COMET)", which will be the single source for estimating the cost of military manpower

in the Navy. This will incorporate the NAVCOMPT Composite Standard Military Rates, the granularity of direct personnel costs from the restructured BCF, and variable indirect personnel costs from Cost of A Sailor. COMET will be completed and made available in final form about the end of 1997.

4. Questions relating to the details or application of the manpower estimating rates contained in enclosure (1) should be directed to Mr. Leonard Cheshire, Ph. 703-604-0285.



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NAVY METHODS AND DATABASES FOR ESTIMATING THE COST OF MANPOWER

1. Several methods are available for estimating the cost of Navy manpower. The selection of the method to be used depends largely on two factors: (a) the purpose of the estimate, and (b) the amount of details available concerning crew composition. The Naval Center for Cost Analysis has recently completed a manpower database/model called "Cost of Manpower Estimating Tool" (COMET) which addresses the various methods in a single model/database. For the first time, we have included comprehensive cost estimating factors covering variable indirect personnel costs as well as direct personnel costs. COMET supersedes the previous Billet Cost Factors database/model.

2. The Navy has available the following methods for estimating the cost of manpower:

a. Standard Programming Rate. The Standard Programming Rate uses one overall average for officers and one for enlisted personnel, and is used primarily for Planning, Programming and Budgeting System (PPBS) purposes. It covers all items funded by MPN, such as pay and allowances, special pay, Permanent Change of Station (PCS), Government contribution to FICA, and retirement accrual. It excludes Navy items funded in appropriations other than MPN, as well as items funded outside the Navy, such as CHAMPUS or GI Bill benefits. No indirect personnel costs, such as training, are included.

b. NAVCOMPT Composite Standard Military Rates. These rates are extracted from the same data as the Standard Programming Rate, but provide more detail. The NAVCOMPT Composite Standard Military Rates provide averages by paygrade for officer and enlisted personnel and are used for budgeting, for recovering costs from non-Defense agencies, and for cost estimating when little detail is available about crew composition. As with the Standard Programming Rate, these rates cover all items funded by MPN, and only MPN, including pay and allowances, special pay, PCS, Government share of FICA and retirement accrual. No indirect personnel costs are included.

c. VAMOSC. VAMOSC contains actual return cost data for individual ships, aircraft squadrons and major subsystems. For this reason, no indirect personnel costs are included in either VAMOSC Ships or VAMOSC Air. VAMOSC is often used for estimating costs by analogy to an existing platform or system. Whereas the Standard Programming Rates and the NAVCOMPT Composite Standard Military Rates reflect the composition of all officers and enlisted personnel in the Navy, VAMOSC personnel costs reflect the actual composition of that particular ship or aircraft squadron, and the actual amount of time that each crew member was aboard during that year.

(1) VAMOSC Ships. VAMOSC Ships covers at an aggregate level those personnel cost items reported through the Joint Uniform Military Pay System (JUMPS); it does not report personnel cost by paygrade or by overall average for officer and enlisted. VAMOSC Ships includes primarily those items reflected in the military person's paycheck, i.e., pay and allowances. VAMOSC Ships excludes retirement accrual and items not funded by the Navy. However, it does include Government FICA contributions. PCS is included in the VAMOSC Ships data base, but is not shown as a personnel cost, as it is in the other cost estimating databases. VAMOSC Ships personnel costs do not include all items funded by MPN and do not cover anything funded by non-MPN appropriations.

(2) VAMOSC Air. Personnel costs contained in VAMOSC Air are not those costs reported through JUMPS. Rather, they are based on NAVCOMPT Composite rates and actual manning levels for aircraft squadrons. Therefore, retirement accrual and FICA contribution are already included in the costs, and unlike VAMOSC Ships, VAMOSC Air includes PCS as a personnel cost. As with VAMOSC Ships, VAMOSC Air does not report personnel cost by paygrade or by overall average for officer and enlisted.

d. Cost of Manpower Estimating Tool (COMET). The COMET database/model provides granularity of personnel costs by paygrade by officer community and enlisted specialty. It includes all items funded by MPN, such as pay and allowances, retirement accrual, FICA contribution, and PCS. In accordance with policies of the Assistant Secretary of the Navy, Research, Development and Acquisition, and the Chairman,

OSD Cost Analysis Improvement Group, the variable indirect personnel costs contained in COMET are to be used only for intra-Navy studies and analyses, not for analyses prepared for use outside the Navy. Since the other services do not include indirect personnel costs in their estimates, the Navy would be unfairly disadvantaged by having analyses based on higher personnel costs compared to analyses based on direct costs only.

(1) COMET includes Navy variable indirect personnel costs that are funded through a mix of MPN and O&MN, such as training and base operational support. It also addresses some costs not funded by the Navy, such as *CHAMPUS* (funded by OSD) and some items funded outside of DOD, such as GI bill benefits (funded by the Veterans Administration).

(2) COMET is the only model/database available to the Navy for estimating comprehensive costs of Government civilian employees. Whereas the Civil Service pay schedules issued by the Office of Personnel Management contain only direct pay, COMET includes retirement benefits, medical and insurance benefits.

(3) "Cost of A Sailor" (COAS) is a recently completed effort by NCCA that developed the methodology for estimating the variable indirect personnel costs that are included in COMET.